

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

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1. (Currently amended) A voltage controlled oscillator (VCO) comprising:  
at least one current amplifier for amplifying an input current; [[and]]  
a variable resistor capacitor (RC) filter for varying the amount of signal delay in the  
VCO; <sup>delay cell</sup> and  
wherein the at least one current amplifier includes a first current amplifier at an input of  
the VCO and a second current amplifier at an output of the VCO, <sup>delay cell</sup> wherein the output current  
of the first and second current amplifiers vary in proportion to variations in  
the input current to the first and second current amplifiers.
  2. (Original) A VCO as in claim 1, further comprising:  
a filter for removing unwanted signal components from a biasing network.
  3. (Original) A VCO as in claim 2, wherein the filter is capable of being bypassed  
using at least one switch.
  4. (Original) A VCO as in claim 1, wherein the variable RC filter includes at least  
one variable capacitor for fine tuning the amount of signal delay in the VCO.
  5. (Original) A VCO as in claim 1, wherein the variable RC filter includes at least  
one variable capacitor for coarse tuning the amount of signal delay.
  6. (Original) A VCO as in claim 1, wherein the RC filter includes a composite  
voltage variable capacitor (VVC) for enabling the RC filter to be finely tuned.

7. (Original) A VCO as in claim 6, wherein the composite VVC utilizes a plurality of bias reference voltage and at least one tuning control voltage for adjusting a precise capacitance value.

8. (Currently amended) A voltage controlled oscillator (VCO) including a current mode delay cell comprising:

a first current amplifier for amplifying an input current;

a resistor capacitor (RC) tuning network for varying the amount of amplification and delay of an output of the first current amplifier; [[and]]

a second current amplifier for amplifying an output current from the RC tuning network;

and

wherein the at least one current amplifier includes a first current amplifier at an input of

the VCO and a second current amplifier at an output of the VCO, wherein the output current of the first and second amplifiers vary in proportion to variations in the input current to the first and second current amplifiers.

9. (Original) A VCO as in claim 8, wherein the RC tuning network includes at least one variable resistor for controlling the gain of the first current amplifier and second current amplifier.

10. (Original) A VCO as in claim 8, wherein the RC tuning network includes at least one variable capacitor for fine tuning the amount of signal delay in the delay cell.

11. (Original) A VCO as in claim 8, wherein the RC tuning network includes at least one variable capacitor for coarse tuning the amount of signal delay in the delay cell.

12. (Original) A VCO as in claim 8, further comprising at least one filter for providing a low noise bias voltage from at least one bias supply.

13. (Original) A VCO as in claim 12, wherein the at least one filter is capable of being switchably bypassed from at least one bias supply.

14. (Original) A VCO as in claim 8, wherein the RC tuning network includes a composite voltage variable capacitor (VVC) for enabling the RC filter to be finely tuned.

15. (Original) A VCO as in claim 14, wherein the composite VVC utilizes a plurality of bias reference voltage and at least one tuning control voltage for adjusting the capacitance value.

16. (Currently amended) A method for providing signal delay in a voltage controlled oscillator (VCO) using a delay cell comprising the steps of:

amplifying an input current with at least one current amplifier; [[and]]

adjusting the amount of signal delay from the at least one current amplifier using a delay network;

providing an adjustable delay using at least one variable resistor and at least one variable capacitor; and

wherein the at least one current amplifier includes a first current amplifier at an input of

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the VCO delay cell and a second current amplifier at an output of the VCO delay cell, wherein the output current of the first and second current amplifiers vary in proportion to variations in the input current to the first and second current amplifiers.

17. (Canceled)

18. (Canceled)

19. (Original) A method for providing signal delay in a VCO as in claim 16, further comprising the step of:

providing a bias to the VCO delay cell using a switchable filter that is capable of being bypassed.

20. (Original) A method for providing signal delay in a VCO as in claim 16, further comprising the step of: